Appl. No.: 10/715,602

Amdt. Dated: 3/23/07

Reply to Advisory Action of: 3/08/2007

## Amendments to the Claims:

Please replace all prior claims versions and listings with the following:

## **Listing of Claims:**

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 (currently amended) A method for making an alumina-silica catalyst support comprising:

a. providing a homogeneous plasticized batch comprising an alumina-silica powder component in combination with a liquid, an organic binder and an acid of at least 0.25 % by weight of the mixture, wherein the alumina-silica powder component is compounded to yield a composition consisting essentially of 2-25 wt.% silica and 75-98 wt.% alumina;

b. extruding the plasticized batch to form a green body;

c. drying the green body; and,

d. heating the green body to a temperature and for a time to provide an aluminasilica body having a surface area of at least 180 m<sup>2</sup>/g for use as a catalyst support; e. wherein the surface area of the alumina-silica catalyst support is between 186 and 302 m<sup>2</sup>/g.

- (previously presented) The method of claim 1 wherein the alumina-silica powder
  component is formed by mixing an alumina-source selected from the group consisting of
  gamma-alumina, boehmite, pseudo-boehmite and mixtures thereof, together with a fused
  quartz.
- 3. (original) The method of claim 1 wherein the alumina-silica powder component is formed by:
  - a. providing a slurry of an alumina-source and silicon alkoxide, wherein the alumina-source is selected from the group consisting of aluminum oxide, aluminum hydroxide, aluminum oxyhydroxide and mixtures thereof;
  - b. spray drying the slurry;
  - c. heating the spray dried material to a temperature of between 500-700°C for a period of 1-5 hours to form a calcined material.

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- 4. (original) The method of claim 3 wherein the acid is added to the slurry to obtain a pH of between 1-5.
- 5. (previously presented) The method of claim 1 wherein the alumina-silica powder component is formed by:
  - a. providing a slurry comprising an alumina-source selected from the group consisting of aluminum oxide, aluminum hydroxide, aluminum oxyhydroxide and mixtures thereof;
  - b. spray drying the slurry to obtain a first particulate material;
  - c. heating the first particulate material to a temperature of between 500-700°C for a period of 1-5 hours to form an alumina-containing calcined material;
  - d. forming a second slurry comprising the alumina-containing calcined material in combination with silicon alkoxide; and,
  - e. spray drying the second slurry.
- 6. (original) The method of claim 5 wherein the acid is added to the slurry to obtain a pH of between 1-5.
- 7. (previously presented) The method of claim 1 wherein the alumina-silica powder component is formed by:
  - a. providing a slurry comprising of an alumina-source selected from the group consisting of aluminum oxide, aluminum hydroxide, aluminum oxyhydroxide and mixtures thereof;
  - b. spray drying the slurry;
  - c. heating the spray dried material to a temperature of between 500-700°C for a period of 1-5 hours to form an alumina-containing calcined material; and,
  - d. adding silicon alkoxide to the alumina-containing calcined material.
- 8. (original) The method of claim 7 wherein the acid is added to the slurry to obtain a pH of between 1-5.
- 9. (previously presented) The method of claim 1 wherein the green body is a honeycomb monolith.

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- 10. (previously presented) The method of claim 1 wherein the alumina-silica catalyst support has a surface area of at least 250 m<sup>2</sup>/g.
- 11. (currently amended) The method of claim 1 A method for making an alumina-silica catalyst support comprising:
  - a. providing a homogeneous plasticized batch comprising an alumina-silica powder component in combination with a liquid, an organic binder and an acid of at least 0.25 % by weight of the mixture, wherein the alumina-silica powder component is compounded to yield a composition consisting essentially of 2-25 wt.% silica and 75-98 wt.% alumina;
  - b. extruding the plasticized batch to form a green body;
  - c. drying the green body; and,
  - d. heating the green body to a temperature and for a time to provide an alumina-silica body having a surface area of at least 180 m<sup>2</sup>/g for use as a catalyst support and wherein the alumina-silica catalyst support has a median pore diameter of between 133 and 241 Å.

## 12. canceled

- 13. (previously presented) The method of claim 1 wherein the step of heating is between 500°C and 1000°C.
- 14. (currently amended) The method of claim 1 A method for making an alumina-silica catalyst support comprising:
  - a. providing a homogeneous plasticized batch comprising an alumina-silica powder component in combination with a liquid, an organic binder and an acid of at least 0.25 % by weight of the mixture, wherein the alumina-silica powder component is compounded to yield a composition consisting essentially of 2-25 wt.% silica and 75-98 wt.% alumina;
  - b. extruding the plasticized batch to form a green body;
  - c. drying the green body; and,
  - d. heating the green body to a temperature and for a time to provide an aluminasilica body having a surface area of at least 180 m<sup>2</sup>/g for use as a catalyst support

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and wherein alumina-silica catalyst support has a modulus of rupture in four-point bending of between 137 psi and 1618 psi.

15. (previously presented) The method of claim 1 further including acetic acid.